

NEW SPECIES OF PUERTO RICAN PHYCITINAE
(LEPIDOPTERA: PYRALIDAE)

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Abstract.—*Zamagiria borinquensis* and *Oryctometopia maricaoensis* are described as new species. Both were collected as adults in western Puerto Rico.

Key Words: moths, phycitines, Puerto Rico

Post-Columbian Puerto Rico has been subjected to major environmental changes. Agriculture, mainly the extensive growing for many years of sugarcane and coffee, replaced much of the native vegetation. Some refugia exist, however, chiefly as parks or reserves. These vary from tropical dry forest to tropical rain forests. Recently, entomologists at the Carnegie Museum of Natural History (CMNH) have intensively light-trapped Lepidoptera in these remaining pockets of relatively undisturbed flora. Two previously unknown species of phycitines were collected. These are described below, and are added to the 20 species (Table 1) previously recorded from Puerto Rico by Heinrich (1956).

Zamagiria borinquensis Neunzig,
new species
(Figs. 1, 3-5)

Type locality.—Puerto Rico, Isabela, Bosque Estatal de Guajataca, Montanas Ay-mamon.

Diagnosis.—The male and female genitalia can be used to separate *Zamagiria borinquensis* from other species in the genus. Features peculiar to the new species are the short, triangular inner clasper on the inner base of the valva, the somewhat elongate, spoonshaped apical gnathal process of the

male (Fig. 3), and the girdle of robust spines in the corpus bursae of the female (Fig. 5).

Description.—Forewing length 6.5-7.0 mm. Head brownish white. Labial palpus white and fuscous. Maxillary palpus white to brownish white, aigrettelike in male. Dorsum of thorax brownish white suffused with fuscous. Forewing brown dusted with white; black ridge of raised, curled scales preceding antemedial line; antemedial line white, weakly developed, with associated adjacent bands of dark scales; postmedial line similar, in color and development, to antemedial line; discal spots black, moderately distinct, separate; patch of very pale reddish brown scales at inner base of wing and scattered patches of darker reddish brown on outer $\frac{2}{3}$ of wing. Underside of male fore and hindwing without patches or streaks of contrasting colored scales (frequently seen in other *Zamagiria*). Male genitalia (Figs. 3, 4): Uncus triangular, narrowly rounded distally; apical process of gnathos expanded into a somewhat elongate spoon-shaped process; juxta a U-shaped, thin plate with setiferous lateral arms; transtilla absent; valva slender, unarmed except for triangular, erect clasper on its inner base; aedoeagus with single, short, stout, well-sclerotized cornutus; vinculum about

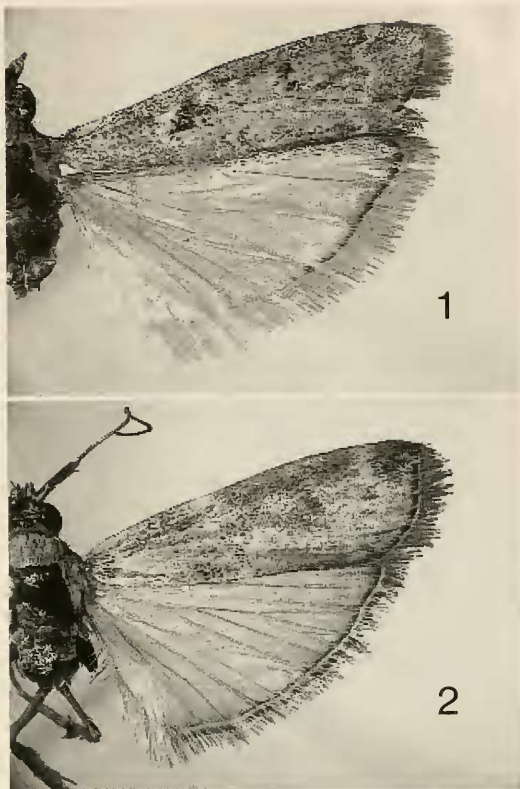
Table 1. Phycitinae listed by Heinrich (1956) as occurring in Puerto Rico¹.

<i>Crocidomera fissuralis</i> (Walker)
<i>Ectomyelois furvidorsella</i> (Ragonot)
<i>Fundella ignobilis</i> Heinrich
<i>Difundella distractor</i> Heinrich
<i>Anadelosemia texanella</i> (Hulst)
<i>Davara interjecta</i> Heinrich
<i>Davara rufulella</i> (Ragonot)
<i>Sarasota furculella</i> (Dyar)
<i>Caristanius pellucidellus</i> (Ragonot)
<i>Eurythmasis ignifata</i> Dyar
<i>Paconius corniculatus</i> Heinrich
<i>Mescinia berosa</i> Dyar
<i>Phiestinia costella</i> Hampson
<i>Laetilia portoricensis</i> Dyar
<i>Metephestia simplicula</i> (Zeller)
<i>Moodnopsis portoricensis</i> Heinrich
<i>Prosoeuzophera impletella</i> (Zeller)
<i>Caudellia clara</i> Heinrich
<i>Ribua contigua</i> Heinrich
<i>Varneria dubia</i> Heinrich

¹ List does not include a few widespread neotropical phycitines that Heinrich included in his checklist as occurring in his category "West Indies," some of which may be found in Puerto Rico.

as long as greatest width. Female genitalia (Fig. 5): Ductus bursae short, about $\frac{1}{5}$ as long as corpus bursae, narrow, except slightly broadened near ostium bursae, without sclerotized plates common to most other *Zamagiria* species, but generally sclerotized anteriorly; corpus bursae elongate, with well-developed, irregular comb of many slender spines extending distally from ductus bursae to about midway on corpus, and with strongly formed band encircling corpus bursae at about middle and bearing about 24 robust spines; ductus seminalis attached to corpus bursae near junction of ductus bursae and corpus bursae.

Type material.—Holotype: ♂: Puerto Rico, Isabela, Bosque Estatal de Guajataca, Montanas Aymamon, 18°25'06N, 66°57'55"W, forest, 210 m, 14–15 June 1996, J. Rawlins, W. Zanol, R. Davidson, C. Young, M. Klingler, S. Thompson; genitalia slide HHN 4427. Paratype: 1 ♀, same collection data as for holotype; genitalia slide HHN 4428.



Figs. 1, 2. Males. 1, *Zamagiria borinquensis*, holotype. 2, *Oryctometopia maricaoensis*, holotype.

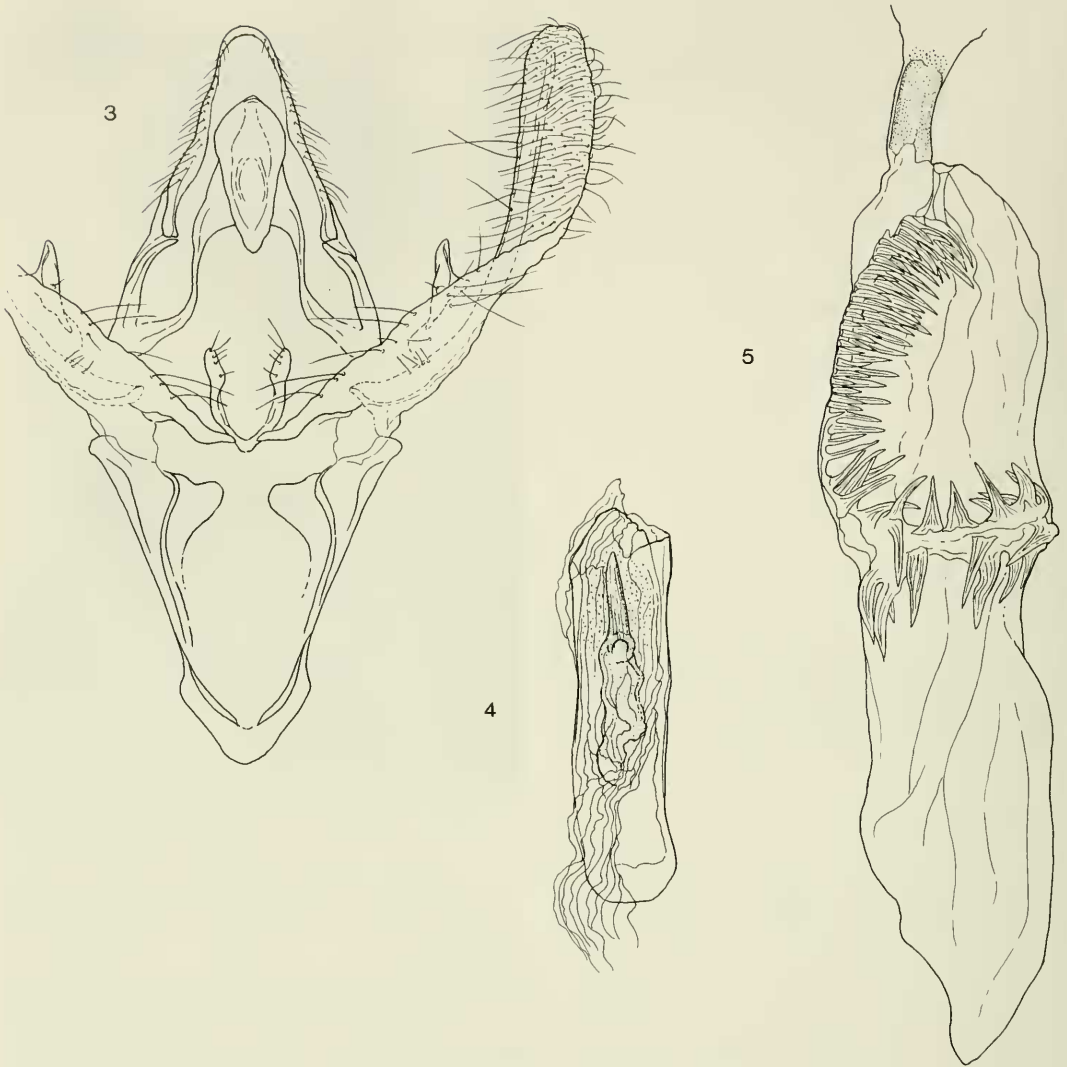
Holotype and paratype deposited in CMNH.

Remarks.—*Zamagiria borinquensis* is very similar externally to other species in the genus. The character states of the male, particularly the grooved head with its unusual compact tuft of scales attached to the frons, and the unique tuft, composed of several distinct types of scales, at the base of the antenna, are easily recognized traits of the species.

Etymology.—The specific epithet is derived from the Taíno name for Puerto Rico (Borínquen), and the Latin suffix *-ensis* (denoting place).

***Oryctometopia maricaoensis* Neunzig,
new species
(Figs. 2, 6–8)**

Type locality.—Puerto Rico, 3.3 km. sw Maricao, Bosque Estatal de Maricao.

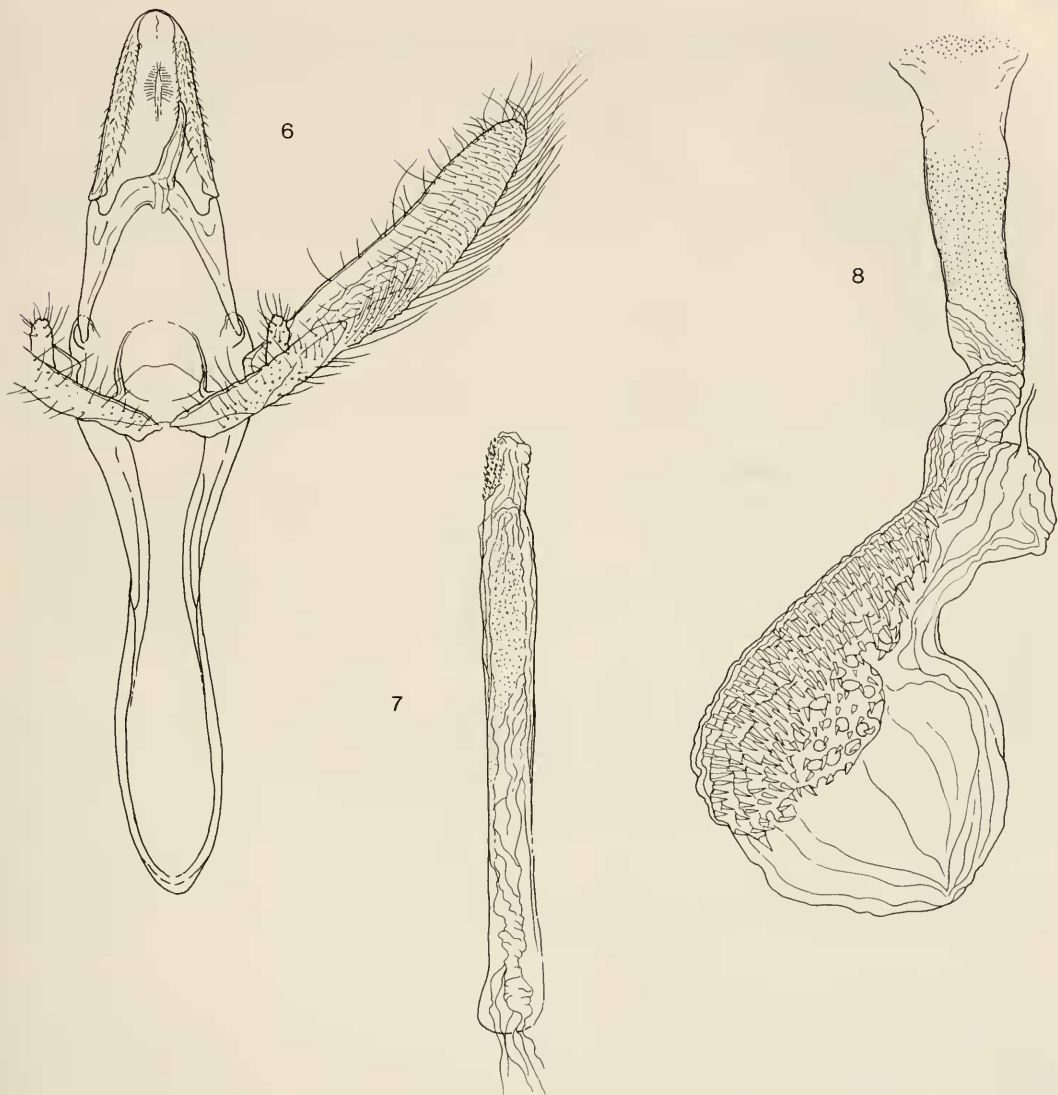


Figs. 3-5. *Zamagiria borinquensis*. 3, Male genitalia (aedeagus omitted). 4, Aedeagus. 5, Female ductus bursae and corpus bursae.

Diagnosis.—The male is readily identified by the elongate, medially constricted vinculum (Fig. 6), and the female by the large spined plate that covers most of one side of the corpus bursae (Fig. 8).

Description.—Forewing length 10.5–12.0 mm. Head of male brownish white to pale reddish brown suffused with reddish brown, and with vertex sulcate and white; upper part of frons produced dorsally into a ridge. Head of female simple, brownish white to pale reddish brown. Labial palpus

brown dusted with white and with a few scattered brownish red scales. Maxillary palpus of male aigrettelike, mostly pale brown, in part pink. Maxillary palpus of female simple, pale brownish white. Dorsum of thorax pale brown or pale purplish brown. Forewing pale purplish brown in basal $\frac{1}{3}$; antemedial line moderately distinct to distinct, white, its inner $\frac{1}{2}$ preceded by black and pale reddish brown patch, and followed by black line and associated white patch; postmedial line moderately distinct



Figs. 6-8. *Oryctometopia maricaoensis*. 6, Male genitalia (aedeagus omitted). 7, Aedeagus. 8, Female ductus bursae, corpus bursae and anterior part of ductus seminalis.

to distinct, white; medial area with patches of red to dark red mostly along costa and at discal spot; subterminal area with broad brownish red patch following postmedial line. Male genitalia (Figs. 6, 7): Uncus narrowly triangular, rounded at apex; apical process of gnathos a well-developed hook; juxta platelike with thin, inwardly curved lateral arms; transtilla absent; valva simple, with short, stout lobes near inner base; aedeagus, long, slender; vesica with cluster

of small spines; vinculum long and slender (about $2\frac{1}{2}$ times as long as basal width), and constricted medially. Female genitalia (Fig. 8): Ductus bursae slightly shorter than corpus bursae, sclerotized over $\frac{1}{2}$ its length; corpus bursae with large, many-spined plate, covering most of left side (when viewed ventrally) of bursae; plate, in part perforate; ductus seminalis attached to corpus bursae near junction of ductus bursae and corpus bursae.

Type material.—Holotype: ♂: Puerto Rico, Bosque Estatal de Maricao, 3.3 km sw Maricao, 18°09'39"N, 67°00'05"W, forest, 550 m, 10–11 June 1996, J. Rawlins, C. Young, R. Davidson, W. Zanol, S. Thompson, M. Klingler; genitalia slide HHN 4459. Paratypes: (4 ♂, 2 ♀, total); same collection data as for holotype, genitalia slides HHN 4415, 4416 (3 ♂, 2 ♀); Puerto Rico, Isabela, Bosque Estatal de Guajataca, Montanas Aymamon, 18°25'06"N, 66°57'55"W, forest, 210 m, 14–15 June 1996, J. Rawlins, W. Zanol, R. Davidson, C. Young, M. Klingler, S. Thompson (1 ♂). All specimens from Maricao deposited in CMNH; Isabela paratype in North Carolina State University Collection (NCSU).

Remarks.—The new species differs most noticeably from *Oryctometopia fossulatella* Ragonot, the only other species in the genus, in that the male genitalia lack the short, thornlike spines projecting from the lower margin of the sacculus, and have a cluster of small spines on the vesica (rather than a single spinelike cornutus), and in that the

female ductus bursae is more extensively sclerotized. Nevertheless, males of both species have an enlarged frons and sunken vertex, tufted and otherwise modified antennae, simple scale tufts on abdominal segment VIII, and generally similar genitalia. Females of both have a characteristically large, sclerotized plate in the corpus bursae bearing numerous short spines.

Etymology.—The specific epithet is derived from the locality (Maricao) where almost all the specimens were collected, and the Latin suffix-*ensis* (denoting place).

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